

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name	
P0038513	ACI001- VC	1	1	Net 30	MT-HRS-P-0.500	Hot Rolled Steel Plate 0.500" (44W) receive sf				16	12/7/2017	16		S017914	Stock	12/6/2017	\$ 13.91 / sf	0		\$222.62	Acier Ouellette Inc.	
		2			MT-HRS-P-0.375	Hot Rolled Steel Plate 0.375" (44W) receive sf						32		S017915	Stock	12/6/2017	\$ 11.37 / sf	0		\$363.72	Acier Ouellette Inc.	
		3			MT-HRS-P-0.188	Hot Rolled Steel Plate 0.188" (44W) receive sf						16		S017916	Stock	12/6/2017	\$ 5.53 / sf	0		\$88.48	Acier Ouellette Inc.	
		4			MT1018B0.625X05.000	1010-1025 Steel Bar 625 X 5.000 : MATERIAL: AISI 1010- 1025 OR ASTM A36/A366/A569/A570 OR OR CSA G40-21 38W/44W/50W/60W/70W CSA G40-21 OR 38W/44W/50W/60W/70W receive ft				6		6		S017917	Stock	12/6/2017	\$ 18.34 / ft	0		\$110.06	Acier Ouellette Inc.	
		5			MT-4140QT-R1.250	MT-4140 QT-R1.250					12		12		S017918	Stock	12/6/2017	\$ 6.51 / ft	0		\$78.07	Acier Ouellette Inc.
Total:										66			82								\$681.39	



ACIER OUELLETTE INC.

935, Boul. du Hâve  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Order - Sales

Copy

CO00064889

Customer N°  
Date

CLI0001056  
2017/11/30

Delivery date

2017/12/05

Your order N°

038513

Processed by

Josianne Bourdon

Salesman

Carrier

Credit Terme

Page

OUELLETTE VALLEYFIELD  
Net 30 Days

Billed to

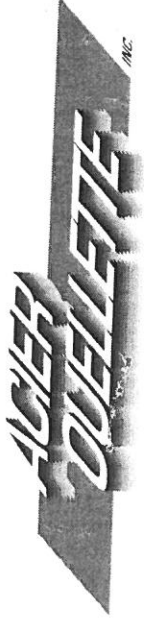
DART AEROSPACE LTD  
1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,  
Att : CHANTAL LAVOIE Tél.: 613-632-5200  
Delivery Route 5

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
1 FLAT CR 5/8 X 5 1018 RANDOM FCR-585-V 2957 1 X 6' HEAT: (KYS13683) TRANSIT ST-JEROME LE 04/12 COUPE A LA SCIE SCIE 1 3 ROUND 4140 HEAT TREAT 1 1/4 RANDOM R4140-114H-V 4897 1 X 12' HEAT: (45610914) COUPE A LA SCIE SCIE 1 4 PLATE 44W 3/16 RANDOM P44-316-V 4105 1 X 4' X 4' HEAT: 442C4	63.75	6.00	PL_\$CLB	1.00						
	50.06	12.00	PL_\$CLB	1.00						
	122.40	16.00	PL2_\$CLB	1.00						

NIR : R-109516-6



## DELIVERY - CLIENT

ACIER OUELLETTE INC.

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

CO00064891

Customer N°

CLI0001056

Date

2017/11/30

Delivery date

2017/12/04

Your order N°

038513

Processed by

Josianne Bourdon

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Page

1

### Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

### Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Instruction F-M

Product Description	Weight	Qty	U/M	P/S NB		Internal Use Only			
				CMD	EXP	B/O	IN	I	S C
1 PLATE 44W 1/2 RANDOM P44-12-V 4062 1 X 4' X 4' HEAT COUPE AU FEU FEU 3	326.40	16.00	PI2 \$CLB		14				
2 PLATE 44W 3/8 RANDOM P44-38-V 4116 1 X 4' X 8' HEAT COUPE AU FEU FEU 3	244.80	16.00 32.5	PI2 \$CLB		14				

### Conditions :

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Total Weight (Lbs) : 571.20

NIR : R-109516-6

Prepared By :

Verified By :

Delivered By :

Time

Y	M	D

Customer's Signature

Date

Total (\$CAD)



## DELIVERY - CLIENT

CO00064889

### ACIER OUELLETTE INC.

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N°  
CLI0001056

Date  
2017/11/30

Delivery date  
**2017/12/05**

Your order N°  
038513

Processed by  
Josianne Bourdon

Salesman

Carrier  
OUELLETTE VALLEYFIELD

Credit Terme  
Net 30 Days

Page  
1

### Shipped to

DART AEROSPACE LTD

1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Instruction F-M

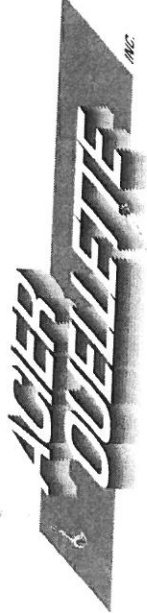
Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only		
				CMD	EXP	B/O	IN	I	S C
<b>1</b> FLAT CR 5/8 X 5 1018 RANDOM FCR-585-V <b>2957</b>  1 X 6' HEAT	63.75	6.00	PI_\$CLB		12.1				
TRANSIT ST-JEROME LE 04/12									
COUPE A LA SCIE SCIE <b>1</b>		1.00	UN						
<b>3</b> ROUND 4140 HEAT TREAT 1 1/4 RANDOM R4140-114H-V <b>4897</b>  1 X 12' HEAT	50.06	12.00	PI_\$CLB		12.1				

Sort-12-5

NIR : R-109516-6

Next Page...





# DELIVERY - CLIENT

CO00064889

ACIER OUELLETTE INC.

935, Boul. du H vre  
Salaberry de Valleyfield (Qu bec) J6S 5L1  
T l.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N  : CLI0001056  
Date : 2017/11/30  
Delivery date : 2017/12/05  
Your order N  : 038513  
Processed by : Josianne Bourdon  
Salesman :  
Carrier : OUELLETTE VALLEYFIELD  
Credit Terme : Net 30 Days  
Page : 2

## Billed to

DART AEROSPACE LTD

1270 , ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

## Shipped to

, Ontario,

Att : CHANTAL LAVOIE T l.: 613-632-5200  
Delivery Route : 5

Instruction F-M

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only		
				CMD	EXP	B/O	IN	I	S C
COUPE A LA SCIE SCIE 1		1.00	UN						
4 PLATE 44W 3/16 RANDOM P44-316-V 4105	122.40	16.00	PI2_\$CLB						
1 X 4' X 4' HEAT SHEAR CUT SHEAR 2		1.00	UN						

## Conditions :

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Total Weight (lbs) : 236.21

NIR : R-109516-6

Prepared By :

Verified By : *Am/ep*

Delivered By : *VF*

Time

Customer's Signature

*12/20/17*

Date

Total (\$CAD)



# ACIER OUELLETTE INC.

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

## Quotation

SOU0072770

### Billed to

DART AEROSPACE LTD  
1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

### Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

**Customer N°** CLI0001056  
**Date** 2017/11/22  
**Revision N°** 0  
**Prices valid until** 2017/11/29  
**Your Order N°**  
**Processed by** BERNARD  
**Salesman** JOSIANNE  
**Carrier** OUELLE SDV  
**Credit Terms** Net 30 Days  
**Page** 1

Product N° and description	Weight	Qty U/M	Qty U/M	Price	Pcs Nb	Price	Amount
PLATE 44W 1/2 RANDOM P44-12-V <b>4062</b> 1 X 4' X 4' P & O NOT AVAILABLE IN 1/2" COUPE AU FEU FEU <b>3</b> STOCK	326.40	16.00 PI2_\$CLB	16.00 PI2		1.00	222.620	222.62
PLATE 44W 3/8 RANDOM P44-38-V <b>4116</b> 1 X 4' X 8' P & O NOT AVAILABLE IN 3/8" COUPE AU FEU FEU <b>3</b> STOCK	244.80	16.00 PI2_\$CLB	16.00 PI2		1.00	181.860	181.86
PLATE 3/16 P & O 1 X 4' X 8' 4-5 DAYS N 187' 448'	0.00	1.00 UN	1.00 UN		1.00	240.000	240.00
SURCHARGE ENERGETIQUE FRAIS_ENERGETIQUE				\$			3.95
<b>Total Weight (Lbs)</b>		571.20					

### Important

This offer is based on availability and current pricing conditions that may be revised upon  
présentation de l'évolution des prix de l'acier sur le marché.  
This offer is subject to conditions of credit approval.  
Approuvé et Accepté par :

**Sub-total** 648.43

TVH-13 · 84.30

Date :

**Total (\$CAD)** 732.73



# ACIER OUELLETTE INC.

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

## Quotation

SOU0074081

### Billed to

DART AEROSPACE LTD  
1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

### Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

### Customer N°

CLI0001056

### Date

2017/11/29

### Revision N°

0

### Prices valid until

2017/12/06

### Your Order N°

### Processed by

BERNARD

### Salesman

JOSIANNE

### Carrier

OUELLE SDV

### Credit Terms

Net 30 Days

### Page

1

Product N° and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
FLAT CR 5/8 X 5 1018 RANDOM FCR-585-V 2957 ✓ 1 X 6' 2-3 DAYS COUPE A LA SCIE SCIE 1	63.75	6.00	PI_\$CLB	6.00	PI		1.00	110.060	110.06
PLAT 4140 1/2 X 4 HT N ✓ 1 X 6' OFFER HT 2-3 DAYS	0.00	1.00	UN	1.00	UN		1.00	165.000	165.00
ROUND 4140 HEAT TREAT 1 1/4 RANDOM R4140-114H-V 4897 ✓ 1 X 12' STOCK OFFER HT COUPE A LA SCIE SCIE 1	50.06	12.00	PI_\$CLB	12.00	PI		1.00	78.070	78.07
ROUND 4130 5/16 N NON-DISPONIBLE OFFER	0.00	1.00	UN	1.00	UN	0.00	1.00		0.00
ROUND 4140 ANNEALED 5/16 RANDOM R4140-516A-V 4971 ✓ 1 X 20' R/L 2-3 DAYS	5.22	20.00	PI_\$CLB	20.00	PI		1.00	12.370	12.37
PLATE 44W 3/16 RANDOM P44-316-V 4105 ✓ 1 X 4' X 4' STOCK SHEAR CUT SHEAR 2	122.40	16.00	PI2_\$CLB	16.00	PI2		1.00	88.480	88.48
SURCHARGE ENERGETIQUE FRAIS_ENERGETIQUE			\$						3.95
<b>Total Weight (Lbs)</b>		241.43							

### Important

This offer is based on availability and current pricing conditions that may be revised upon  
révision de l'offre de l'évolution des prix de l'acier sur le marché.  
This offer is subject to conditions of credit approval.  
Approuvé et Accepté par :

### Sub-total

457.93

TVH-13 • 59.53

Date :

### Total (\$CAD)

517.46

## Chantal Lavoie

---

**From:** Daniel Paquette  
**Sent:** Wednesday, November 29, 2017 8:59 AM  
**To:** Chantal Lavoie  
**Subject:** FW: A36 PICKLED IN OIL Ref; RBW6505G00831-3G

Use DWG. MT-HRS-P. This is for "non" pickled in oil (normal steel) Scott will deviate the drawing until we can figure out what to do in the future. Thanks.

Ex; MT-HRS-P-0.500

Numbers are not in PLEX yet I will have them put in and let you know ASAP.

**From:** Daniel Paquette  
**Sent:** Wednesday, November 22, 2017 11:42 AM  
**To:** Chantal Lavoie <clavoie@dartaero.com>  
**Subject:** A36 PICKLED IN OIL Ref; RBW6505G00831-3G

Can you order this material please. Thanks.

0.500 thick 4' X 4' SHEET

0.375 thick 4' X 4' SHEET

0.187 thick 4' X 4' SHEET

One of each please.

**DANIEL PAQUETTE**  
*Production Engineering Coordinator*

**DART AEROSPACE**  
T 1 613 632-5200 > 236  
F 1 613 632-5246  
1 800 556- 4166  
[www.dartaerospace.com](http://www.dartaerospace.com)





Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER PO038513

**Supplier:** ACI001-VC  
Acier Ouellette Inc.  
935 Boul. Du Havre  
Valleyfield  
QC  
J6S 5L1 Canada  
Phone: 800 667 4248  
Fax: 450 377 5696

**PO No:** PO038513

**PO Date:** 11/29/17

**Due Date:** 12/7/17

**Purchase Order**

**Revision:**

**Revision Date:**

**Ship-To Contact:** Baker, Diane  
Phone: dbaker@dartaero.com

**Via:** Ground

**Pymt Terms:** Net 30

**Freight Terms:**

**Special Comments:** quotation no, sou0072770,sou0074081

**E-MAILED**  
NOV 30 2017

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

Items									
Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	MT-HRS-P-0.500	Hot Rolled Steel Plate 0.500" (44W) receive sf	Firmed	12/7/17	16 sf	0 sf	16 sf	\$13.91375/sf	\$222.62
2	MT-HRS-P-0.375	Hot Rolled Steel Plate 0.375" (44W) receive sf	Firmed	12/7/17	16 sf	0 sf	16 sf	\$11.36625/sf	\$181.86
3	MT-HRS-P-0.188	Hot Rolled Steel Plate 0.188" (44W) receive sf	Firmed	12/7/17	16 sf	0 sf	16 sf	\$5.53/sf	\$88.48
4	M1018B0.625X05.000	1010-1025 Steel Bar .625 X 5.000 : MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR OR CSA G40-21 38W/44W/50W/60W/70W CSA G40-21 OR 38W/44W/50W/60W/70W receive ft	Firmed	12/7/17	6 ft	0 ft	6 ft	\$18.34333/ft	\$110.06
5	MT-4140QT-R1.250	MT-4140 QT-R1.250	Firmed	12/7/17	12 ft	0 ft	12 ft	\$6.505833/ft	\$78.07
<b>Grand Total:</b>								<b>\$681.09</b>	

## Order Notes

### Procurement Quality Clauses

- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 dart notification by supplier
- A043 retention of quality documents
- A048 counterfeit parts avoidance, detection, mitigation and disposition program
- A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.



ACIER OUELLETTE INC.

935, Boul. du Hâvre  
Saliaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl.: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl.: 514-336-4246 Ext.: 866-456-4242

## Order - Sales

Copy

CO00064891

### Billed to

DART AEROSPACE LTD  
1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

### Shipped to

, Ontario,  
At: CHANTAL LAVOIE Tél.: 613-632-5200  
Delivery Route 5

Page 1

Carrier  
Credit Terme

OUELLETTE VALLEYFIELD  
Net 30 Days

Customer N°

CL10001056

Date

2017/11/30

Delivery date

2017/12/04

Your order N°

038513

Processed by

Josianne Bourdon

Salesman

Product Description	Weight	Qty	U/M	PCS NB				Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C	OUT
1 PLATE 44W 1/2 RANDOM P44-12-V 4062 1 X 4' X 4' HEAT 711852 COUPE AU FEU 3 FEU 2 PLATE 44W 3/8 RANDOM P44-38-V 4116 1 X 4' X 8' HEAT 7093C4-51 COUPE AU FEU 3 FEU SURCHARGE ENERGETIQUE FRAIS_ENERGETIQUE	326.40	16.00	P12_\$CLB	1.00							
	244.80	16.00	P12_\$CLB	1.00							
		1.00	UN								
			\$	0.00							

Total Weight (LBS) : 571.20

NIR : R-109516-6

Conditions :  
All sold and delivered materials remain the property of "Acier Ouellette Inc." until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the respect with this contract will read to payment by acceleration and permits to the seller at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% reworking charge.

Prepared By : Verified By :

Delivered By : Time

Customer's Signature

Y M D

Total (\$CAD)

461.53

Deposit

0.00

Balance

461.53

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M101RBO.625x05.000  
 DATE: DEC 07 2017

PO / BATCH NO.: 038513/5017917

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 6"  
 QUANTITY INSPECTED: 6"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .625  
 THICKNESS RECEIVED: .625  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y	N	
CORROSION	Y	<input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	Hard tooling use only
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y	N	Heat # KYS13683
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u></u>	SIGNED OFF BY: _____	
DATE: <u>DEC 07 2017</u>	DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1018A-750W-125  
 DATE: DEC 07 2017

PO / BATCH NO.: 038507/5018265

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 20"  
 QUANTITY INSPECTED: 20"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .750  
 THICKNESS RECEIVED: .750  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	Y N	<u>Dark tooling use only DAS</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	<u>8</u>
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	<u>9-50</u>
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	<u>Heat # 52074320/04</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>[Signature]</u> <span style="float: right;">DAS 8</span> DATE: <u>DEC 07 2017</u>	SIGNED OFF BY: _____ DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1018 B0.500X01.000

PO / BATCH NO.: 038507/5018266

DATE: DEC 07 2017

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12"  
 QUANTITY INSPECTED: 12"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500  
 THICKNESS RECEIVED: 0.500  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	N	
CORROSION	Y	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	— Dart tooling use only
CORRECT THICKNESS	<input checked="" type="checkbox"/>	N	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	N	Heat # 588829
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>[Signature]</u> DATE: <u>DEC 07 2017</u>	SIGNED OFF BY: _____ DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140T-R 1.250

PO / BATCH NO.: 038513/5017918

DATE: DEC 07 2017

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 12"  
 QUANTITY INSPECTED: 12"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250  
 THICKNESS RECEIVED: 1.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORROSION	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	<u>Astm 4140</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	<u>Heat # 45610914</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="radio"/> N <input checked="" type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="radio"/> N <input checked="" type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office


QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>[Signature]</u> / <u>8</u> DATE: <u>DEC 07 2017</u> / <u>17/12/17</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR  
 SPECIFICATION: ASTM 4140 QT or ASTM 4142 QT  
 PART NUMBER: MT-4140QT-R [D.DDD]  
 WHERE "D.DDD" = DIAMETER IN INCHES  
 EG. 5/8" ROUND BAR = MT-4140QT-R0.625

REV.	DESCRIPTION	DATE	BY	APPROVED
A	NEW ISSUE	17.09.12	VM	VM

 <b>DART AEROSPACE</b>	
TITLE: <b>AISI 4140 Q&amp;T ROUND BAR</b>	
DWG NO: <b>MT-4140QT-R</b>	
DESIGN BY: VM 8/9/2017	CHECKED BY: VM 09/14/2017
MFG. APPR: LPD 09/14/2017	DATE: 9/14/2017
APPROVED: [Signature] VM 09/14/2017	
SCALE: NTS WEIGHT: 0.0 LBS	
SHEET 1 OF 1	
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ECW 17-655

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-HRS-P-0.188  
 DATE: DEC 09 2017

PO / BATCH NO.: 038513/5012916

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 16<sup>pkts</sup>  
 QUANTITY INSPECTED: 16<sup>pkts</sup>  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.188  
 THICKNESS RECEIVED: 0.188  
 SHEET SIZE ORDERED: 4x4  
 SHEET SIZE RECEIVED: 4x4 4x4

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	44 W
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	Heat # 442C4
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>ml</u> DATE: <u>DEC 09 2017</u>	SIGNED OFF BY: <u>5</u> DATE: <u>12/14</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL:

SPECIFICATION:

PART NUMBER:

EXAMPLE:

HOT ROLLED STEEL PLATE

ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018

MT-HRS-P-[T.TTT]

WHERE T.TTT IS PLATE THICKNESS IN INCHES

MT-HRS-P-0.750

TOLERANCES PER MANUFACTURER SPECIFICATIONS

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
B	REMOVED LENGTH AND WIDTH DIMENSIONS	17-875	26/09/2017	SAC	WM

<b>DART</b> AEROSPACE		Homestead, Ontario, Canada	
TITLE <b>HOT ROLLED STEEL PLATE</b>			
DWG NO.	MT-HRS-P	REV	B
DESIGN BY:	SAC 08/2017	XXX 2 005	FRACTIONS 1/8
DRAWN BY:	SAC 09/27/2017	X 1	1/4
CHECKED:	VM 09/27/2017	1	DIMENSIONS ARE IN INCHES
APPROVED:	DP 09/27/2017	2	INTERPRET DIM AND TOL PER
DATE:	09/27/2017	3	DATE Y14M 2009
SCALE:	N/A	WEIGHT:	N/A
SHEET 1 OF 1			
COPYRIGHT © 2017 BY DART AEROSPACE LTD			
THIS DOCUMENT IS UNCLASSIFIED AND NOT FOR DISTRIBUTION OUTSIDE THE COMPANY			
FOR MORE INFORMATION CONTACT: 1-800-461-4614			

Customer P.O.	B94089	Sales Order	102711.1
Product Group	Cold Finish Bar	Part Number	340201
Grade	1018 ASTMA108	Lot #	X1100035
Size	Flat 0.6250x5.0000 (0080)	Heat #	KYS13683
Product	FL 0.6250" x 5.0000" 1018 CD	B.L. Number	X1-100425
Description	CF Grade 1018	Load Number	X1-100367
Customer Spec		Customer Part #	V732211

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed above and that it satisfies those requirements.

Part Detail: FL 0.6250" x 5.0000" 1018 12-R Cold Drawn  
Process: Cold Drawn

C	Mn	P	S	Si	Cu	Cr	Ni	Mo	V	Cb
0.16%	0.65%	0.010%	0.023%	0.22%	0.23%	0.11%	0.08%	0.030%	0.0020%	0.002%

Melting Mill: KENTUCKY	Country of Melting: USA	Grain Practice: COARSE
Reduction Ratio 7.7 :1	Country of Rolling: USA	Rolling Mill: KENTUCKY
Specification Comments:		

1. Material certifies to ASTM A108 - 13 (unless otherwise noted) for Standard Cold Finished Bars
2. No welding or weld repair was performed on this material.
3. Mercury, radium, or alpha source materials in any form have not been used in the production of this material

MAR 16 2016  
11:56 AM  
-----

*Chris Kelly*

Chris Kelly

DIVISION METALLURGIST



SIMEC INTERNATIONAL, S.A. DE C.V.



GRUPO

Aseguramiento de la Calidad

CERTIFICADO DE CALIDAD N°  
CERTIFICATE OF QUALITY N°

14-4561B

ACEROS ESPECIALES

CUSTOMER ORDER: 210049

The products supplied are in compliance with the requirements of the order.

CLIENTE

CUSTOMER	Magellan Corporation	GRADO DE ACERO	
N° DE COLADA		STEEL GRADE	4140H / 4142
HEAT N°	45610914	REDIDA	
IDENTIFICACION		SECTION SIZE	1.1/4"
COLOR CODE	Blue and White	PERFIL	
		SHAPE	Round

ANALISIS QUIMICO %

CHEMICAL ANALYSIS % (In accordance to ASTM A751-11) (DI: Caterpillar 1E0038)

C	Mn	Si	P	S	Cr	Ni	Mo	Al	Cu	Sn	P+S	V	D.I	H2(ppm)
.40	.92	.29	.020	.020	.91	.10	.190	.027	.25	.019	.040	.000	5.51	<3ppm

METALOGRAFIA

METALLOGRAPHY

(In accordance to ASTM E112-12)

TAMANO DE GRANO GRAIN SIZE	DECARBURIZACION DECARBURIZATION	ESTRUCTURA STRUCTURE	(In accordance to ASTM E45-13) INCLUSIONES NO METALICAS NONMETALLIC-INCLUSIONS			
6-8	0.007 "	Perlite-Ferrite	A	B	C	D
			2.0T	0.5T	1.0T	1.0T
			0.0H	0.0H	0.0H	0.0H

PROPIEDADES MECANICAS

MECHANICALS PROPERTIES (In accordance to ASTM A370-14)

Reduction ratio= 32.33

RESISTENCIA A LA TENSION TENSILE STRENGTH (KSI)	LIMITE DE CEDENCIA YIELD STRENGTH (KSI)	REDUCCION DE AREA REDUCTION IN AREA	% ALARGAMIENTO ELONGATION IN 2" gage	DUREZA HARDNESS
150	Y.P. 0.2%: 138	58.8	19.15	

HARDNESS (In accordance to ASTM A370-14)

MID RADIUS: N/A HBW

SURFACE: 306.6 HBW

REMARKS:

This is steel was heat treatment (QT) in continuous line heat treat  
Austenitized at 1572 °F By: 38 min Quenched in: Water spray at 84 °F  
Tempered at 1178 °F By: 43.887 min Cooled in air at temperature room. Stress free  
Conform to ASTM A193-10 Grade B7, ASTM A434-06 Class BC, ASME SA193-00 Grade B7,  
AISI 4140 & AISI 4142, ASTM A388-11

OBSERVACIONES:

OBSERVATIONS

- 1) Steel is free from mercury
- 2) No Repair Welding
- 3) Fine Grain Practice
- 4) Material according with ASTM A29-12, A255-10, A304-11 y A322-07
- 5) Vacuum Desgassed
- 6) Calcium aluminium treated
- 7) Steel is Free From Radioactive Contamination
- 8) Ultrasonic inspection results: ASTM E114-10 Satisfactory
- 9) Electric Furnace
- 10) ASTM E381-01: Macro etch ratings: S=1, R=1, C=1
- 11) Comply with EN 10204: 2004 Inspection certificate 3.1

FECHA  
DATE

14-Ene-2015 11:00

Juan Ruiz Hdez.

ASEGURAMIENTO DE CALIDAD  
QUALITY ASSURANCE DEPARTMENT

F8.2.4-01/D

Join 2016

B. 26 9/2018  
Magellan

S

17/12/16







ESSAR STEEL ALGOMA INC., 105 West Street, Sault Ste. Marie, Ontario, Canada P6A 7B4

SO No./Item & Date: 8047540 000040 2016/12/17

Sold to Customer Name and Address:

LES ACIER TRANSBEC (1997) LTEE  
BOUL LE CORBUSIER #201-4054  
LAVAL, Quebec, Canada

Shipment No. & Date: 120000776: 2016/12/17

Ship to Customer Name and Address:

LES ACIER TRANSBEC (1997) LTEE  
RUE JEAN COUVE 360  
VARENNES, Quebec, Canada

TC No., Date & Time:

ESA-365217 2016/12/18 - 01:40:59

Customer PO No./Item:

G-46211/4  
120000776:

Cust. Part No.:

Carrier:

C P RAIL (CAD FUNDS) - NDVX 381265

Customer Specification:

HR STEEL SHEET HSLA 50 / SS to the Chemistry of Multi Cert CSA G40 21 50W (2013) / CSA G40 21 44W (2013) Top Semi Critical Surface Improved Shape Gauge type NOM - 0.0035" / 0.0035"

Supplementary Instructions: Test Cert 1:mlt@collex.ca Test Cert 2: nathalie.legault@acertransbec.com

Inspr TIR: Test Report for Info Only

ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES. THIS TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER, PLEASE CALL (709) 946-4066 FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT. THIS TEST REPORT HAS BEEN GENERATED BY A COMPUTERIZED SYSTEM AND IS VALID WITHOUT A PHYSICAL SIGNATURE.

Cust Use: STRUCTURAL

ISO QUALITY AND ENVIRONMENTAL CERTIFICATES AVAILABLE AT WWW.ESSARSTEELALGOMA.COM

Tensile Tests									
Heat No.	Batch No.	SRCE	LAB	GAUGE	COND	METH	DIR	LOC	YIELD(KSI)
4421C4		DSPC	ALG	0.1800	AR	2	T	F	59.0
4422C4		DSPC	ALG	0.1800	AR	2	T	F	57.0
									73.0
									2"
									30

**WARNING:** THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE USUAL SPECIFIED YIELD STRENGTH, AND (2) THE ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO QUALIFY THE STEEL FOR ANY APPLICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE INCLUDING DESIGN OR CALCULATIONS AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.

KASHIF REHMAN  
MANAGER METALLURGICAL SERVICES

2/2

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-HRS-P-0.500  
 DATE: DEC 09 2017

PO / BATCH NO.: 038513/5017914

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 16<sup>pkts</sup>  
 QUANTITY INSPECTED: 16<sup>pkts</sup>  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500  
 THICKNESS RECEIVED: 0.500  
 SHEET SIZE ORDERED: 4x4  
 SHEET SIZE RECEIVED: 4x4

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORROSION	Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	<u>44W</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
PHOTO REQUIRED	Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	<u>Heat # 442264 711852</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>[Signature]</u> DATE: <u>DEC 09 2017</u>	SIGNED OFF BY: <u>[Signature]</u> DATE: <u>12/12/17</u>		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL:

SPECIFICATION:

PART NUMBER:

EXAMPLE:

HOT ROLLED STEEL PLATE

ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018

MT-HRS-P-[T.TTT]

WHERE T.TTT IS PLATE THICKNESS IN INCHES

MT-HRS-P-0.750

TOLERANCES PER MANUFACTURER SPECIFICATIONS

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
B	REMOVED LENGTH AND WIDTH DIMENSIONS	17-675	26/09/2017	SAC	WM

<b>DART</b> AEROSPACE		Newbury, Ontario, Canada	
TITLE: HOT ROLLED STEEL PLATE			
DWG NO. MT-HRS-P			
DESIGN BY:	SAC 09/27/2017	XXX ± .005	FRACTIONS ± .01
DRAWN BY:	SAC 09/27/2017	XX ± .01	ANGLES ± .1°
CHECKED:	VM 09/27/2017	1 DIMENSIONS ARE SURFACES ± .1°	
WFL APRR:	DP 09/27/2017	2 UNLESS OTHERWISE SPECIFIED	
APPROVED:	09/27/2017	3 NAME Y14 JAN 2009	
DATE:	09/27/2017	4 OTHER TOLERANCE LIMITS APPLY	
SCALE:	NTS	WEIGHT:	N/A
SHEET 1 OF 1			
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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-HRS-P-0.375  
 DATE: DEC 09 2017

PO / BATCH NO.: 038513/5017915

MATERIAL CERT REC'D: ✓-05  
 QUANTITY RECEIVED: 32<sup>1/2</sup>  
 QUANTITY INSPECTED: 32<sup>1/2</sup>  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.375  
 THICKNESS RECEIVED: 0.375  
 SHEET SIZE ORDERED: 4X8  
 SHEET SIZE RECEIVED: 4X8

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	(Y)	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	44 W
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	Next # 7093C4-51
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AD</u> / <u>8</u> DATE: <u>DEC 09 2017</u> / <u>076214</u>	SIGNED OFF BY: _____ DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL:

SPECIFICATION:

PART NUMBER:

EXAMPLE:

HOT ROLLED STEEL PLATE

ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018

MT-HRS-P-[T.TTT]

WHERE T.TTT IS PLATE THICKNESS IN INCHES

MT-HRS-P-0.750

TOLERANCES PER MANUFACTURER SPECIFICATIONS

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
B	REMOVED LENGTH AND WIDTH DIMENSIONS	17-675	26/09/2017	SAC	WM

<b>DART</b> AEROSPACE		Hawthornbury, Ontario, Canada	
TITLE <b>HOT ROLLED STEEL PLATE</b>			
DWG NO.		REV	
DESIGN BY: SAC 08/2017		XXX 1 000	
DRAWN BY: SAC 09/27/2017		XX 1 01	
CHECKED: VM 09/27/2017		1 SURFACES ± 12°	
MFG. APPR: JDP 09/27/2017		2 UNLESS OTHERWISE SPECIFIED	
APPROVED: WM 10/05/2017		3 DIMENSIONAL LIMITS APPLY	
DATE: 9/27/2017		SCALE: NTS	
WEIGHT: N/A		SHEET 1 OF 1	
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DATE 2/10/2017  
CERTIFICATE NO 7060796  
PAGE NO 2

CUSTOMER: A FIRM STEEL  
CROSS NO: 7650555773  
DIMENSIONS: 3' 700" X 24.38 X .650 X .58 X 240 INCH  
STANDARD & GRADE: CSA G40.71/ASTM A572 50W, 50W, GR50, 2  
PRODUCT TYPE & DEFINITION: HOT ROLLED HEAVY PLATE WITH MILL EDGE

LOT 401 NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

# PRODUCTION

## MECHANICAL AND OPERATIVE

[illegible][illegible]

AS THE MANUFACTURER, I HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF ASAE G40.21/ASTM A572 300M-350M/ GR50 T2 (FROEMER 3246) WITH SATISFACTORY RESULTS.



NOTE: T:Top, M:Middle, E:End, T:Transverse, L:Longitudinal, P:P,Place of Site, P:Place of Plate  
 DENNIS Number/(Istanbul Head Office): 0352-0006-4260-0020, Trade Registry Number/(Istanbul Department  
 Head Office: Istanbul), Barbados Man. Arch Soc. No. 6 3376 Alagözler ISTANBUL - TURKEY



www.erdemir.com.tr



DATE 2/24/2017  
CERTIFICATE NO. 7066296  
PAGE 10

LOT NO. NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

[illegible][illegible]

... IN ACCORDANCE WITH THE RULES OF



(1) 90659: Trade Registry Number (Eregl. Departmanı): 1574127



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ERDEMİR ÇELİK FABRİKASI  
DURUM: İSTANBUL 3500 000 000 TL

TEST CERTIFICATE  
EN 10274 1004 TYPE 3

DATE: 25.04.2017  
CERTIFICATE NO: 70602961  
PAGE NO: 4

CUSTOMER: WIRTH STEEL  
ORDER NO: 74500559733  
3. STANDARD GRADE: 12 750 X 2435 X 6096  
PRODUCT TYPE & DEFINITION: C54 C60 211ASTM A572 300W 350W 420 T2 (ERDEMİR 3248)  
ENR: H01 ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO: 1  
FULLY KILLED AND FINE GRAIN PRACTICE

PRODUCT INFORMATION

1. ORDER NO: 033702362 12 430

MECHANICAL PROPERTIES

CHEMICAL COMPOSITION ON CAST ANALYSIS

PLATE NO	COIL	P.S.	YIELD STRENGTH	TENSILE STRENGTH	ELONGATION	BEND	IMPACT TEST	TEMP	C	Mn	P	S	SI	AL	CU	NI	V	N	PPM
711852	71185220700320	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220700420	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220800110	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220800120	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220800210	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220800220	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220800310	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220800320	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220800410	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220800420	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220900110	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220900120	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220900210	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220900220	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220900310	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220900320	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220900410	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185220900420	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185221000110	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185221000120	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185221000210	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185221000220	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185221000310	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185221000320	TT	385.3	551.1	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185221000410	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	
711852	71185221000420	TT	381.5	551.9	36	180°	10 J	176	0.176	1.88	0.016	0.007	0.206	0.029	0.032	0.041	0.012	47	

WE (THE MANUFACTURER) HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF EN 10274 1004 TYPE 3



NOTE: T. Top. Head. E. End. T. Transverse. L. Longitudinal. P. S. Piece of Steel. P. P. Piece of Plate  
MERSİS Number (İstanbul Head Office): 0350-0006-4280-0020. Trade Registry Number (İstanbul Department): 90659. Trade Registry Number (Ereğli Department): 15741212

Head Office: İstanbul. Barışlar Mah. Ardiç Sok. No: 6. 34746 Alışehir İSTANBUL - TURKEY



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TEST CERTIFICATE  
EN 10264 2004 TYP 5.1

DATE: 23/04/2017  
CERTIFICATE NO: 1602351  
PAGE NO: 5

ORDER NO: 77020556709  
DIMENS: 2400 x 1200 x 10  
STANDARD: EN 10264  
PRODUCT TYPE: 2. DEFLECTION LWS FOR ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO: NO RESOLUTORY COMPOUNDS NO WELD REPAIR  
FULLY MILD AND FINE GRAIN PRACTICE

PRODUCT INFORMATION

TICKET NO: 0237025265  
HEAT NO: 711855

PLATE NO: 1702300674010101

POSITION: 1

YIELD TENSILE: 555

TENSILE: 555

BEND: 180

VAL: 180

VAL: 180

VAL: 180

VAL: 180

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MECHANICAL PROPERTIES

TENSILE TEST

BEND TEST

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CHEMICAL COMPOSITION

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NOTE: THE MANUFACTURER HEREBY CERTIFIES THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF CSA G40 21/ASTM A572 300W-350W/ GR50 T2 (ERDEMIR 3246)

NOTE: T. Top, Bottom, E. End, T. Transverse, L. Longitudinal, P. S. Piece of Steel, P. P. Piece of Plate  
MERSIS Number (Istanbul Head Office): 0352-0066-4260-0202, Trade Registry Number (Istanbul Department): 90653, Trade Registry Number (Ereğli Department): 1574712  
Head Office: Istanbul, Barbaros Mah. Atılgı Sok. No: 6 34746 Alışehir, ISTANBUL - TURKEY

IN 1924 - 2004 TYPE 2

DATE 25/04/2011  
CERTIFICATE NO 70002561  
PAGE NO 5

LOT NO. 1 NO NECESSITY OF FOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

PROPERTY

[illegible]

WITH SATISFACTORY RESULTS



90659. Trade Registry Number (Ereği Departamenti): 1574177.



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DATE 06/04/2001  
CERTIFICATE NO 10502961  
PAGE NO 2

LOT NO: NO MERCURY COMPOUNDS WOULD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

CHEMICAL COMPOSITION OF...

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ERDEMİR ÇELİK FABRİKASI  
OUTSTANDING CAPITAL 3.420.000.000 TL

TEST CERTIFICATE  
EN 10224 2004 (TYPE 3.1)

DATE 25/04/2017  
CERTIFICATE NO 7060296  
PAGE NO 5

CUSTOMER W. RTH STEEL  
ORDER NO 7550566701  
DIMENSIONS mm 12.700 x 2438 x 5058 (+0.500 x 50 x 240.000)  
STANDARD S 355E CSA G40 21/ASTM A572 300M-355M/EN5C 12 (ERDEMİR 3246)  
PRODUCT TYPE & DEFECT ON LFN NOT ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO 1 NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY ROLLED AND FINE GRAIN PRACTICE

PRODUCT INFORMATION

TICKET NO/WEIGHT (MM)

HEAT NO

COIL NO

PLATE NO

P.P. POS

YIELD STRENGTH

TENSILE TEST

ELONGATION

IMPACT TEST

AVG TEMPERATURE

HIGH TEMPERATURE

LOW TEMPERATURE

CHEMICAL COMPOSITION

ANALYSIS

023702530312.420

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DATE 25/04/2011  
CERTIFICATE NO 7000296  
PAGE NO 9

LOT NO. 1 NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY MILLED AND FINE GRAIN PRACTICE

[illegible]

ITEM NO.	WEIGHT (MT)	HEAT NO.	COLL.	P.P.	S.A.M.	ENFILE	TEST	BEND	AS	T	HARD	POSITION	1	2	3	AIR	TEMP	YIELD	CHEMICAL COMPOSITION ON CAST ANALYSIS											
																			C	MN	P	S	SI	AL	CU	NI	V	N	PSW	C
023702333112-400		731566	731566203002120	TT	395.1	561.5	3.4												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566203002101	TT	357.4	559.8	3.6												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566203002201	TT	357.4	559.8	3.6												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566203003101	TT	395.1	561.5	3.4												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566203003201	TT	395.1	561.5	3.4												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566203004101	TT	387.4	569.8	3.6												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566203004201	TT	387.4	569.8	3.6												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566204001101	TT	358.1	561.5	3.4												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566204002101	TT	357.4	559.8	3.6												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566204002201	TT	357.4	559.8	3.6												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566204003101	TT	358.1	561.5	3.4												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566204003201	TT	358.1	561.5	3.4												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566204004101	TT	387.4	569.8	3.6												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566204004201	TT	387.4	569.8	3.6												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566205001101	TT	396.1	561.5	3.4												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566205001201	TT	396.1	561.5	3.4												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		
		731566	731566205002101	TT	387.4	569.8	3.6												0.158	2.20	0.013	0.005	0.157	0.030	0.051	0.038	0.074	45		

WE THE MANUFACTURER HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE PHYSICAL AND CHEMICAL REQUIREMENTS SPECIFIED IN ASTM A372 (EQUIV. 3246) WITH SATISFACTORY RESULTS.

... IN ACCORDANCE WITH THE RULES OF



Department 15741272

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[illegible]

DATE 2/12/2017  
CERTIFICATE NO 200236  
PAGE NO 1

10% ACETONE  
FULLY FILLED AND FINE  
PRODUCT INFORMATION

SECRET

[illegible][illegible]

AND TESTED IN ACCORDANCE WITH THE RULES OF  
WITH SATISFACTORY RESULTS



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ERDEMİR DEMİR VE ÇELİK FABRİKASI T.A.Ş.  
OUTSTANDING CAPITAL 3.500.000.000 TL

CUSTOMER

ORDER NO: 15500681292  
DIMENSIONS: 12 700 X 2438 X 500 X 96 X 240 (INCH)  
STANDARD: A GRADE  
PRODUCT TYPE: A. DEMIR - ON LAM. HOT ROLLED HEAVY PLATE WITH MILL EDGE

TEST CERTIFICATE  
EN 10028-2 2006 TYPE 3.1

DATE: 29/04/2017  
CERTIFICATE NO: 155020681  
PAGE NO: 13

NOTES:  
NO MECHANICAL PROPERTIES  
ONLY KILLED AND FINE GRAIN PRACTICE

PRODUCT INFORMATION										MECHANICAL PROPERTIES										CHEMICAL COMPOSITION ANALYSIS									
TICKET NO	WEIGHT (MT)	HEAT NO	COIL NO	PLATE NO	P.S.	PSA	TENSILE TEST	BEND. TEST	AG.	Y.T.	IMPACT TEST	TEMP.	HIGH	C	NI	P	S	SI	AL	CU	N	V	N	PPM					
02370233712.375		731569	731569201004291	TT	415.8	565.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	395.2	562.8	36							0.185	1.204	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	395.2	562.8	36							0.185	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	415.8	569.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	395.2	568.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	395.2	568.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	415.8	569.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	415.8	569.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	415.8	569.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	415.8	569.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
023702339112.440		731569	731569201004291	TT	415.8	565.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	395.2	562.8	36							0.185	1.204	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	395.2	562.8	36							0.185	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	415.8	569.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	395.2	568.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	395.2	568.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	415.8	569.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	415.8	569.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	415.8	569.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						
		731569	731569201004291	TT	415.8	569.8	36							0.189	1.201	0.017	0.008	0.173	0.031	0.033	0.042	0.074	45						

WITH SATISFACTORY RESULTS.

THE MANUFACTURER HEREBY CERTIFIES THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF  
TSA G40 21/ASTM A572 300M/350M/GR50 T2 (ERDEMİR 3345)



NOTE: T-Top, M-Middle, E-End, T-Transverse, L-Longitudinal, P-S Piece of Slice, P-P Piece of Plate  
Head Office: (Istanbul) Head Office: 0357-0006-4260-0020; Trade Registry Number: (Istanbul Department) 90659; Trade Registry Number: (Eregli Department) 1574/212  
Head Office: (Istanbul) Barbaros Mah. A'dig Sok No: 6 34746 Alagazi (Istanbul - TURKEY)



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DATE  
CERTIFICATE NO  
PAGE NO

LOT NO 1 NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY MILLED AND FINE GRAIN PRACTICE

GENERAL COMMISSION

[illegible]

www.eidemir.com.tr

ERDEMİR ÇELİK FABRİKASI  
OUTSTANDING CAPITAL 1.500.000.000 TL

TEST CERTIFICATE  
EN 10204 - 2004 TYPE 3

DATE: 26.04.2017  
CERTIFICATE NO: 70502561  
PAGE NO: 15

CUSTOMER: WÜRTH STEEL  
ORDER NO: 78500926703  
DIMENSIONS: 12.700 X 2400 X 6000 (10.500 X 96 X 240 INCH)  
STANDARD & GRADE: CSA G40 21/ASTM A572 300M-350M-GR50 T2 (ERDEMİR 3246)  
PRODUCT TYPE & DEFINITION: LKX HOT ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO 1 NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

PRODUCT INFORMATION

TICKET NO: 1

WEIGHT (MT):

HEAT NO:

COIL NO:

PLATE NO:

P.P. POS:

YIELD STRENGTH:

TENSILE STRENGTH:

ELONGATION:

IMPACT TEST:

TEMP. °C:

YIELD:

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TEMP. °C:

MECHANICAL PROPERTIES

TENSILE TEST

YIELD STRENGTH

ELONGATION

IMPACT TEST

TEMP. °C

YIELD

TEMP. °C

YIELD

TEMP. °C

YIELD

TEMP. °C

YIELD

TEMP. °C

YIELD

TEMP. °C

YIELD

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TEMP. °C

YIELD

CHEMICAL COMPOSITION

ANALYSIS

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www.erdemir.com.tr

WE (THE MANUFACTURER) HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF  
CSA G40 21/ASTM A572 300M-350M-GR50 T2 (ERDEMİR 3246)  
WITH SATISFACTORY RESULTS

OTE: T-Top, Middle, E-End, T-Transverse, L-Longitudinal, P-S Piece of Slice, P-P Piece of Plate  
KESİSİ: T-Üst, Orta, E-Baş, T-Çapraz, L-Uzunluk, P-S Dilime, P-P Dilime  
Head Office: İstanbul Head Office: 0352-0005-4260-0020, Trade Registry Number (İstanbul Department): 90655, Trade Registry Number (Ereğli Department): 15747/177  
Head Office: İstanbul: Barbaros Mah. Ardic Sok. No: 6 34746 Alsaghir İSTANBUL - TÜRKİYE

8115

DATE 5/10/2017  
CERTIFICATE NO 10007951  
PAGE NO 15

LOT NO 1 NO NECESSARY COMPOUNDS TO WEED REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

# MECHANICAL PROPERTIES

[illegible]

... IN ACCORDANCE WITH THE RULES OF THE COURT AND TESTED IN ACCORDANCE WITH THE RULES OF THE COURT WITH SATISFACTORY RESULTS.



Trade Registry Number (Ereğli Department): 1574/272



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DART -> 64891 6-46220 4112 48101 4110 48100



ESSAR STEEL ALGOMA INC., 105 West Street, Sault Ste. Marie, Ontario, Canada P6A 7B4

SO No., Item & Date: 8050589 0C0060 2017/03/12	Shipment No. & Date: 1200008792 2017/03/12	TC No., Date & Time: ESA-385275 2017/03/13 - 01:40:39
Sold to Customer Name and Address: LES ACIER TRANSBEC (1997) LTEE BOUL LE CORBUSIER #201-4054 LAVAL, Quebec, Canada H7L 5R2	Ship to Customer Name and Address: LES ACIER TRANSBEC (1997) LTEE RUE JEAN COUTU 350 VARENNES, Quebec, Canada J3X 1P7	Customer PO NO./Item: G-46220(REV)/6 BOL NO.: 1200008792 Cust. Part No.: Carrier: C P RAIL (CAD FUNDS) - CGLX 12068

Customer Specification: HR STEEL SHEET HSLA SQ/SS To the Chemistry of CSA G40.21 44W (2013) Top Semi Critical Surface Improved Shape Gauge type MIN - 0/+ 0.0100 \*

Supplementary Instructions: Test Cert 1: mtr@collex.ca Test Cert 2: nathalie.legault@aciertransbec.com

Insp TIR: Test Report For Info Only

ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES. THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER, PLEASE CALL (709) 945-4355 FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT. THIS TEST REPORT HAS BEEN GENERATED BY A COMPUTERIZED SYSTEM AND IS VALID WITHOUT A PHYSICAL SIGNATURE

MEETS EN 10204 3.1

ISO QUALITY AND ENVIRONMENTAL CERTIFICATES AVAILABLE AT WWW.ESSARSTEELALGOMA.COM

ALL HEATS FULLY KILLED  
HEATS INDICATED WITH (\*) MADE IN CANADA FOR NAFTA COUNTRY PREFERENCE AND NAFTA MARKETING PURPOSES

Dimensions (T x W x L)	Batch No.	Heat No.-MS	Quantity	Pcs
0.3650" x 48.000"	XBM9191	7093C4-51	42,184 LB	1

Heat No. (wt%)	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	Al	Nb	V	Ti
7093C4*	0.17	0.87	0.009	0.004	0.030	0.02	0.02	0.03	0.00	0.040	0.017	0.000	0.002

CHEMICAL PROPERTIES

MECHANICAL PROPERTIES

Heat No.	Batch No.	SRCE	LAB	GAUGE	COND	METH	DIR	LOC	YIELD(KSI)	TENSILE(KSI)	EL SCALE	ELONG(%)
7093C4				0.3650	AR	.2	T	F	56.0	76.0	2"	42

Comp

KASHIF REHMAN  
MANAGER METALLURGICAL SERVICES

\*\*\*WARNING\*\*\* THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE ANALYSES AND PHYSICAL PROPERTIES OF EACH STEEL ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO QUALIFY THE STEEL FOR ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE (INCLUDING DESIGN OR CALCULATIONS) AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.